



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,302	10/07/2003	Timothy Antesberger	EI-2-03-011	5212

7590 04/05/2006

LAWRENCE R. FRALEY
HINMAN, HOWARD, & KATTELL
700 SECURITY MUTUAL BUILDING
80 EXCHANGE STREET
BINGHAMTON, NY 13901

EXAMINER

ESTRADA, MICHELLE

ART UNIT	PAPER NUMBER
----------	--------------

2823

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,302

Applicant(s)

ANTESBERGER ET AL.

Examiner

Michèle Estrada

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 76-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 82-84 is/are allowed.
- 6) ☒ Claim(s) 76 and 81 is/are rejected.
- 7) ☒ Claim(s) 77-80 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 76 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer et al. (5,264,108) in view of Park et al. (6,809,335).

Re claim 1, Mayer et al. discloses providing a first dielectric layer having a first surface (15); forming a first pattern of conductors (16) and a second pattern of conductors (17) spaced from said first pattern and electrically coupled thereto on said first surface of said first dielectric layer; forming a common conductive line (13) on said first surface of said first dielectric layer electrically connected to each of said conductors of said second pattern of conductors (See fig. 1); and thereafter terminating said electrical connections between each of said conductors of said second pattern of conductors and said common line using a laser (See Abstract).

Mayer et al. do not disclose positioning a second dielectric layer substantially over said first and second patterns of conductors.

Park et al. disclose positioning a second dielectric layer (30) substantially over said first and second patterns of conductors (22/24).

It would have been within the scope of one of ordinary skill in the art to combine the teachings of Mayer et al. and Park et al. to enable the second dielectric formation

Art Unit: 2823

step of Park et al. to be performed in the process of Mayer et al. to isolate further structures from the first and second conductive patterns.

Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer et al. (5,264,108) in view of Kanamaru et al. (2005/0074910).

Re claim 1, Mayer et al. discloses providing a first dielectric layer having a first surface (15); forming a first pattern of conductors (16) and a second pattern of conductors (17) spaced from said first pattern and electrically coupled thereto on said first surface of said first dielectric layer; forming a common conductive line (13) on said first surface of said first dielectric layer electrically connected to each of said conductors of said second pattern of conductors (See fig. 1); and thereafter terminating said electrical connections between each of said conductors of said second pattern of conductors and said common line using a laser (See Abstract).

Mayer et al. do not disclose wherein said forming of said first and second patterns of conductors being accomplished using electrolytic plating.

Kanamaru et al. disclose that conductive layers and patterns can be accomplished using electrolytic plating [0046].

It would have been within the scope of one of ordinary skill in the art to combine the teachings of Mayer et al. and Kanamaru et al. to enable the conductive patterns formation step of Mayer et al. to be performed according to the teachings of Kanamaru et al. because one of ordinary skill in the art would have been motivated to look to alternative suitable methods of performing the disclosed conductive patterns formation

Art Unit: 2823

step of Mayer et al. and art recognized suitability for an intended purpose has been recognized to be motivation to combine. See MPEP 2144.07.

Allowable Subject Matter

Claims 77-80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 82-84 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Estrada whose telephone number is 571-272-1858. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2823

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Michelle Estrada". The signature is fluid and cursive, with the first name "Michelle" written in a larger, more prominent script than the last name "Estrada".

Michelle Estrada
Primary Examiner
Art Unit 2823

ME
April 3, 2006